

REMARKS

Applicant notes with appreciation the indication of allowable subject matter in the Office Action dated June 22, 2005, as well as the wholesale withdrawal of the previous rejections made based on the combination of the Nakamura, Elliott, and Carr references. In response, this Amendment is submitted and accepts the allowed coverage by recasting dependent claims 17 and 23 as new independent claims 31 and 32. Applicant also amends the specification to include the missing section headings, reformats the claims as suggested by the Examiner, and presents non-narrowing, clarifying amendments to claims 19 and 21 to address the rejections of claims 2-6, 9 and 15-24 under Section 112, second paragraph.

Turning to the rejections, claims 2-6, 9, 12, 15, 18-22 and 24-30 are allegedly directed to “obvious” inventions over U.S. Patent No. 2,789,655 to Michael in view of two secondary references: JP 2000317342A to Fukumaki and U.S. Patent No. 3,712,472 to Elliot. The Office Action expressly admits that Michael, as the primary reference, fails to disclose “magnets movable by differential pressure,” as required in claims 12, 19, 21, and 28-30. However, it is contended that Michael “already teaches magnets movable by mechanical means” (although neither the location of this purported teaching in the reference nor the particular **mechanical** means is identified). Moreover, the previously cited Elliott patent allegedly “teaches that use of differential pressure can be recognized as an art recognized equivalent to mechanical means for moving shuttle magnets in the magnetic separating arts.”

Applicant respectfully submits that the statements made in the Office Action in making these rejections are not supported by the cited art, and otherwise no motivation exists in the art to combine the references in the manner proposed. First of all, Michael does not

teach “magnets movable by mechanical means,” as is contended in support of the rejections.

Rather, a plurality of open-ended tubes 42 simply “hold” the magnets 52 in place while the gas to be filtered of dust flows over the portion of the tubes containing the magnets within the separation chamber. While the magnets 52 may be removed from the tubes 42 as the result of human intervention when the device is disassembled, they need not move in order for filtration to occur in the desired fashion (and, indeed, as described further below, movement to the purported “release” position would actually defeat the entire purpose of the invention). Accordingly, there is simply no motivation for a skilled artisan to use differential pressure in the Michael device to move the magnets 52 between a separator position and any “release position.” The teachings of Elliott and Fukumaki are thus simply inapposite to the invention disclosed in Michael, and not properly combinable with it.

Even if manually moving the magnets 52 above the plate 41 shown in Michael during disassembly of the device is assumed to achieve a “release position,” it is also emphasized that this position lies downstream of the separator position (that is, the release position is above the plate 41). If the Michael device operated by way of differential pressure, such that the magnets 52 moved above the plate 41, then separation would not occur within the lower chamber, as desired, but would instead occur in the portion of the chamber above the plate 41. This is in direct contradiction to the teachings of this reference, and would deleteriously result in the magnetic particles being removed from the gas downstream of the separator (only to be swept away when the magnets return to the separator position below the plate 41, thus rendering the entire operation futile). The proposed combination would thus render the prior art device of Michael unsuitable for its intended purpose, which means no suggestion

or motivation to make the proposed modification exists and a *prima facie* case for obviousness is lacking. MPEP § 2143.01 (8th ed., Rev. 2, 2004).

Combining the references in the manner proposed would also require a complete reworking and redesign of the Michael device and would change its entire principle of operation, both of which are indicia of non-obviousness. MPEP 2143.01, *supra* (citing *In re Ratti*, 123 USPQ 349 (CCPA 1959) (finding “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.”) Unlike in Michael, the release position of the magnets in Elliott is outside of the flow path, and associated with a separate baffle 30 for scraping away the collected particles. In the Fukumaki arrangement, the release position is outside of the flow path as well. However, the Office Action fails to explain how the supposed release position in Michael would remove particles from the gas without undergoing a significant modification to the design. Likewise, if the open ends of the tubes 42 in Michael were closed and the tubes narrowed, as would be necessary to eliminate the clearance to allow for the use of differential pressure to move the magnets, the magnets could never move to a “release position” outside of the flow path. Instead, the magnets 52 would simply be captured in a closed tube 42. Even if the Michael device “may be capable of being modified to run the way the apparatus is claimed” upon making such changes, this is insufficient to support the obviousness rejection absent “a suggestion or motivation in the reference to do so.” MPEP § 2143.01, *supra*. Such a suggestion or motivation is clearly lacking in the present record for the foregoing reasons, and claims 2-6, 9, 12, 15, 18-22 and 24-30 should be held

allowable.

With specific regard to dependent claim 18, it requires a chamber divided by a baffle plate such that the release position is upstream of the baffle, while the separator position lies downstream of it. This is of course the exact opposite of the arrangement allegedly shown in Michael and Elliott, and no such baffle is shown in Fukumaki. Thus, none of the three cited references teach the limitations of claim 18, making its rejection specious. MPEP §2143.04, *supra* (“[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.”)

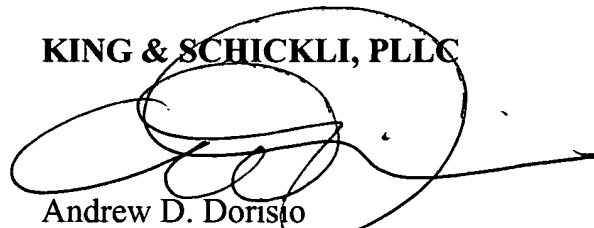
Independent claim 29 is rejected over the combination of Michael, Elliott, and Fukumaki. Like allowed claim 17, claim 29 requires “an outlet valve for directing the fluid in a first direction when the shuttle is in its separator position and in a second direction when the shuttle is not in its separator position.” Since none of the references is alleged to disclose an outlet valve in this claimed combination and for performing the function of directing the fluid in first and second directions, it is believed that the rejection of claim 29 is not supported in the record and must be withdrawn.

Turning to claim 16, it stands rejected over these three references in further view of U.S. Patent No. 4,457,838 to Carr. However, Carr does not supply the teachings missing from claim 19 or claim 21 to render the inventions obvious, and when combined with the other references does not otherwise support the case for *prima facie* obviousness. Accordingly, the allowance of this dependent claim and the other claims dependent on claims 19 and 21 is in order.

In summary, Applicant submits that the cited prior art when combined would not lead a skilled artisan to the inventions of the rejected claims, and that the cited references are not otherwise properly combinable because there is no motivation to do so. Thus, it is believed that the rejections should be withdrawn and all claims held allowable. However, if there is some issue requiring further attention, the Examiner is invited to telephone the undersigned to expedite its resolution and allowance of the application. Moreover, in the event some fee is due, please debit it from Deposit Account 11-0978.

Respectfully submitted,

KING & SCHICKLI, PLLC



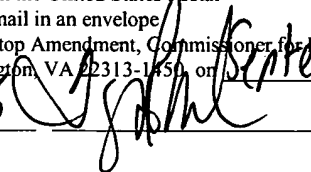
Andrew D. Doristo
Registration No. 41,713

247 North Broadway
Lexington, KY 40507
(859) 252-0889

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